ABSTRACT OF THE DISCLOSURE

A device for monitoring the fuel pressure in the fuel feed circuit (7) of a fuel injection internal combustion engine (2), which includes at least one cylinder (2) and one exhaust line (6) for the combustion gases, characterized in that the device includes elements (8) for generating a value for measuring the fuel/air ratio of the exhaust gases in the exhaust line (6), elements (9) for generating a value for measuring the fresh air flow rate into the cylinder (2), elements (10) determining the mechanical opening time of the injector (4), and computation elements (1) for determining a reconstituted fuel pressure value from the value for measuring the fuel/air ratio of the exhaust gases, from the value for measuring the fresh air flow rate and from the mechanical opening time of the injector.